Revisiting the 1988 Widnall Report on the Closure of MIT's Department of Applied Biological Science

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The 1988 Widnall Report on the closure of MIT's Department of Applied Biological Science stands as a critical document in the history of academic restructuring at the Massachusetts Institute of Technology (MIT). This paper revisits the report, examining the context, principles, procedures, and impact of the closure. By reflecting on the historical significance and contemporary relevance, we aim to extract lessons applicable to current academic environments facing similar challenges.

Introduction

The Massachusetts Institute of Technology (MIT) has long been at the forefront of scientific and technological innovation. However, maintaining this position often requires difficult decisions regarding the allocation of resources and the sustainability of academic departments. The 1988 Widnall Report, named after committee chair Sheila Widnall, provides a comprehensive framework for such decisions, particularly focusing on the closure of the Department of Applied Biological Science. This paper aims to analyze the report's guidelines, assess its impact, and discuss its relevance to contemporary academic restructuring.

Historical Context

In the late 1980s, MIT faced significant financial constraints that necessitated a thorough review of its academic units. The Department of Applied Biological Science, despite its contributions to interdisciplinary research, was identified as a candidate for closure. The decision was driven by a combination of financial considerations and strategic realignment of MIT's academic priorities. The formation of the Committee on Reorganization and Closing of Academic Units was a direct response to these challenges.

https://orgchart.mit.edu/system/files/reports/19880513_Provost_Closing_Academic_Units.pdf

Guiding Principles of the Widnall Report

The Widnall Report outlined several key principles to guide the closure of academic units:

1. **Transparency and Equity**: Ensuring that the process was open and fair, with significant input from faculty and other stakeholders.
2. **Academic Integrity**: Preserving the academic standards and integrity of the institution while making necessary changes.
3. **Minimal Disruption**: Minimizing the impact on students, faculty, and staff through careful planning and support measures.

Procedures and Implementation

The report provided a detailed procedure for the closure of academic units, which included:

1. **Proposal Stage**: Initial identification and proposal for closure, including justifications based on academic and financial evaluations.
2. **Review and Approval**: Involvement of faculty committees, administrative reviews, and final approval from the Institute's governing bodies.
3. **Support and Transition**: Strategies for supporting affected faculty and students, including reallocation to other departments and career transition assistance.

Impact on Stakeholders

The closure of the Department of Applied Biological Science had significant implications for various stakeholders:

1. **Faculty**: Some faculty members were reassigned to other departments, while others pursued opportunities outside MIT.
2. **Students**: Efforts were made to ensure that students could complete their programs, with options for transferring to other departments.
3. **Institution**: The closure allowed MIT to reallocate resources to emerging areas of research, thereby strengthening its overall academic portfolio.

Case Studies and Precedents

The report included case studies of previous closures and reorganizations both at MIT and other institutions. These case studies provided valuable insights into best practices and potential pitfalls, helping to inform the recommendations.

Contemporary Relevance

The principles and procedures outlined in the Widnall Report remain relevant to today's academic landscape. Universities continue to face financial pressures and the need to adapt to rapidly changing fields of study. The report's emphasis on transparency, academic integrity, and minimal disruption offers a robust framework for managing such transitions.

Lessons Learned

Reflecting on the 1988 Widnall Report, several key lessons emerge:

1. **Importance of Clear Communication**: Transparent communication with all stakeholders is crucial in managing the closure process.
2. **Support Systems**: Robust support systems for affected faculty and students can mitigate negative impacts and facilitate smoother transitions.
3. **Strategic Alignment**: Academic restructuring should align with the institution’s long-term strategic goals and priorities.

Conclusion

The 1988 Widnall Report on the closure of MIT's Department of Applied Biological Science provides a timeless framework for managing academic restructuring. By revisiting the report, we gain valuable insights into the principles and practices that can guide contemporary institutions through similar challenges. As universities continue to navigate financial constraints and evolving academic landscapes, the lessons from the Widnall Report remain pertinent and instructive.

May 13, 1988

REPORT OF THE COMMITTEE ON REORGANIZATION AND CLOSING OF ACADEMIC UNITS: LEARNING FROM THE ABS EXPERIENCE

to be presented and discussed at the May 18, 1988 Faculty Meeting

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Motion to be presented by the Committee:

> We move that the Faculty accept this report and endorse its recommendations and call upon the Faculty Policy Committee and the Administration to report back to the Faculty in the Fall as to their progress in implementating the recommendations.

I. THE SCOPE OF THE COMMITTEE'S WORK

The committee was appointed by President Paul E. Gray and Professor Bernard J. Frieden, Chairman of the Faculty, acting on a motion adopted by the faculty at its March 16, 1988 meeting, to "propose guidelines for future departmental reorganizations or closings." The faculty action grew out of the decision to close the Department of Applied Biological Sciences (ABS).

The charge to the Committee was:

> "The principal charge to the Committee is to analyze past experience in order to propose guidelines for future departmental reorganizations or closings. The recommended guidelines should provide for consultation, evaluation, and communication with the people affected; they should permit action when action is justified. The Committee should also make recommendations on the status of tenured and non-tenured faculty affected by future reorganizations or closings."
>
> "The main experience to be analyzed is the decision to close the Department of Applied Biological Sciences. Prior reorganizations should be investigated to the extent permitted by the time available."
>
> "The Committee is encouraged to interview any members of the faculty and administration who have knowledge of decision-making on promotion, tenure, and departmental operation at MIT."
>
> "The Committee should submit its written report to Paul Gray and Bernard Frieden in time for circulation to the faculty before its May 18th meeting. After consideration by the faculty, the findings and recommendations of the Committee will guide the Faculty Policy Committee and the Administration in arriving at an explicit policy for the Institute."

We began meeting in early April with the goal of presenting our written report to the faculty at its May meeting. We met with faculty and students of ABS,

with members of the Administration who had been involved in the current action as well as those who had been involved in previous reorganizations. We met with the Chairs of other faculty committees and the Chairman of the Faculty was a frequent participant.

Based upon the record of the Faculty Meeting and the wording of our charge, we did not consider the issue of whether the decision to terminate the ABS department was correct but rather concentrated upon issues of policy and process. The disciplinary makeup of the Committee was not appropriate for judging the issues concerning the future of alied biological sciences at MIT. In addition, we do not believe that any useful purpose is served by calling upon the Administration to rescind its decision and re-establish the status quo ante. This would lengthen the period of uncertainty for many of our affected colleagues without guaranteeing a more favorable outcome. Too many arrangements have been made on the assumption that the decision would stand for rescission to be a viable proposal.

II. CONCLUSIONS

It is the view of this committee, and we believe of the faculty at large, that a key to the success of the Institute has been the maintenance of a system of shared governance. Few of the MIT faculty see themselves in an employee-employer relationship to the Administration. Rather, most feel that the Administration and faculty share a joint responsibility for sustaining the excellence of the Institute. They expect that, when important choices arise about mission or internal organization, they will naturally be involved in the process leading up to decisions and in the planning of implementation.

No doubt this form of governance has its costs in terms of administrative flexibility, because of the unavoidable tension between the need for flexibility of action and the requirements of our collegial system. But the benefits of our system far outweigh the costs. As a result of the consultation, administrative officers are better informed about the substance of key choices. With the involvement of people in the affected units, details of implementation are better planned. Because their representatives are

involved in the process, faculty are likely to accept the changes as legitimate, even when they disagree on the substance.

One need not argue that previous reorganizations were without fault. It is sufficient to observe that changes appear to have been carried forward without the rending of trust that comes with the feeling that actions were poorly informed or badly implemented.

The manner of the closing of ABS has called into question this pattern of shared responsibility, and the reaction is universal. Everyone to whom we spoke deplored the process; no one came forward to defend it.

We reviewed the major departmental reorganizations and closings since 1976 (APPENDIX 1), and in all these the affected faculty participated in the decision and in the plan for implementation. In some cases they were able to modify and shape the decision in important respects. Even with this degree of faculty involvement, we have not encountered evidence that our system has hurt the Institute by blocking important changes in the past. Our collegial tradition could have handled the reorganization of ABS, difficult though the process may have been for the Administration and those in ABS and other affected departments.

Aside from the issue of shared responsibility, a source of concern in this case arises from the collective regard of the faculty for one another. It is the perception of the faculty that members of ABS were poorly treated in the process: the unfavorable publicity that impacted their careers, the lack of understanding and communication by the Administration as to the nature of the Institute's commitment to their careers, the lack of consultation prior to the decision, and the announcement of the decision without a detailed plan for assuring continuity of the careers of the faculty. This is not acceptable treatment of faculty members at MIT by its administration. The incident raised apprehension in the minds of many about the meaning of tenure and the obligations to junior faculty, other MIT personnel and students. We believe the faculty needs a clear statement on these issues and below we make recommendations to this effect.

But most important, we must restore our collegial processes of internal change, for they have been a major factor in our ability to attract faculty of extraordinary quality and to make MIT the unique institution that it is. To this end we could simply call for a renewal of commitment to our familiar consultative way of doing business, classifying the ABS incident as an unfortunate accident unlikely to be repeated. We do not believe this solution is sufficient considering the degree of departure from that tradition, and the attendant damage to individuals and our internal polity, that proved possible in the absence of some formal guidelines.

We therefore recommend the introduction into Policies and Procedures of a specific procedural step to be used in future reorganizations, which will help insure that a consultative process has been followed. We believe that this modest requirement will preserve the system of shared governance without denying the Administration the flexibility of action that is crucial to the healthy evolution of the Institute.

In our investigations, we have found on all sides a wealth of good will to the Institute and its traditions and an earnest desire to learn from the ABS experience. With the actions we recommend, we are confident that the Institute will emerge both wiser and stronger than before, with a renewed sense of joint purpose among the members of the faculty and those of our number who carry the burdens of administration.

Glenn A. Berchtold, Professor of Chemistry
John M. Essigmann, Associate Professor of Applied Biological Sciences
Morris Halle, Institute Professor, Linguistics and Philosophy
Henry D. Jacoby, Professor of Management
Phillip A. Sharp, John D. MacArthur Professor of Biology
Arthur C. Smith, Professor of Electrical Engineering
Sheila Widnall, Abby Rockefeller Mauze Professor of Aeronautics and Astronautics (Chairman)

III. SUMMARY OF FINDINGS AND RECOMMENDATIONS

III.1 Findings

After hearing descriptions of the procedures that were followed in previous reorganizations, this Committee believes that the crucial defects in the ABS case were:

1. There was inadequate communication between the Dean and the Department Head during the period when the decision to close the Department was being considered. The decision was arrived at without consultation with the faculty involved and was announced to the faculty as an accomplished, non-negotiable fact.

2. There was virtually no consultation by the Dean, President and Provost with other members of the administration, the faculty of the Institute, and the Corporation Visiting Committee prior to the decision to close the Department.

3. The decision to close the Department was announced before any detailed planning for assuring the continuity of the careers of faculty and students had been formulated.

4. The Administration did not make a strong and informed statement about the meaning of tenure when the decision was announced to the Department faculty. The nature of the Institute's obligation to other academic personnel was inadequately communicated as well.

5. The implications of the Departmental closing on the undergraduate program, VII-B, was not considered by the Administration nor by the relevant departments or faculty committees prior to the decision. It also appears that the present Rules of the Faculty do not provide adequate procedures for terminating an academic program at either the undergraduate or graduate level.

6. A clear message was not immediately communicated to the various

constituencies of the Department (e.g., granting agencies) as to the status and future of the faculty, the research, and the educational programs of the Department.

III.2 Recommendations

Since the Institute has functioned well up to the recent period with shared responsibility and consultation between administration and faculty, the question arises whether any change is needed in Policies and Procedures. We find that the recent events indicate such a need. We believe that our report can serve as a background document and legislative history for necessary changes in Policies and Procedures and in the Rules of the Faculty. Below we summarize our recommendations which are discussed more fully in the body of our report.

1. We recommend that the process used to implement decisions to reorganize or terminate an academic unit should be formalized as follows. A proposal and plan for such reorganization of an academic unit should be submitted to the Provost by the relevant academic officer, in most cases the Dean of a School. Before a final decision is made, we recommend that the President appoint a committee to provide advice to him on the planned reorganization. The committee need not be asked to make a formal recommendation on the proposed change, but it should review the procedures that have been followed in bringing the case to the President including the level and seriousness of information gathering, consultation, and thought given to the associated personnel issues. We also recommend that language be prepared to be included in Policies and Procedures requiring presidential appointment of such a committee.

2. We recommend that the Institute formalize the principle that tenure is held by the faculty in the Institution rather than in a department or other academic unit. This principle should be clearly stated in Policies and Procedures. Likewise, it should be clearly stated that contracts with junior faculty, and senior and principal research scientists or equivalent are guaranteed by the Institute standing behind their academic unit.

3. We recommend that the Faculty Policy Committee review the existing rules and policy documents with respect to both the initiation and termination of degree programs. The outcome of such a review should be a single policy document supplemented with changes in the Rules of the Faculty.

IV. THE PROCESS USED IN CLOSING THE DEPARTMENT OF APPLIED BIOLOGICAL SCIENCES

Professor Wogan became Chairman of the Department of Nutrition and Food Science in 1979. He inherited an unfocused department offering graduate degrees in five areas ranging from clinical nutrition to biochemical engineering. The areas of nutrition and food science were declining reflecting a national trend, whereas other areas such as toxicology, neuropharmacology and biotechnology were emerging to positions of central importance. The need to refocus the activities of the Department was recognized by the faculty and emphasized by the Corporation Visiting Committees that met in 1980 and 1982, although at the latter meeting some disagreement surfaced with some Visiting Committee members recommending that the Department continue a major effort in nutrition, while others urged a concentration on biotechnology.

Discussions among the faculty of Nutrition and Food Science on the mission of the Department began in 1979 and intensified during the period between mid-1982 and late 1984. These discussions resulted in a consensus of the faculty and students that the Department would emphasize biotechnology, neuropharmacology and toxicology. Graduate students would be trained through a new core curriculum, which was implemented in 1986. The faculty requested that Professor Wogan investigate the possibility of renaming the Department to reflect the adjustment in course and the new focus provided during his first term as Chairman. The Visiting Committee was restructured to reflect the new emphasis of the Department.

Early in 1984, frank and candid discussions occurred between Professor Wogan and Professor Deutch, who was then Dean of Science, concerning the new mission

of the Department and the prospect of the Department name change to reflect this new mission. Dean Deutch believed that the new areas of emphasis were important; he asked Professor Wogan to stay on as Chairman and agreed to commit further resources to the Department. However, he expressed concern over some faculty appointments and emphasized the need for Professor Wogan to accelerate the phasing out of certain departmental programs. Dean Deutch's concerns continued to grow during 1984 and, in early 1985, he and Provost Low met separately with Professor Wogan to discuss the question of whether the Department should be phased out. After these detailed and substantive discussions, the Provost and the Dean decided not to pursue the idea of dissolving the Department and agreed to change its name to Applied Biological Sciences, effective February 1, 1985.

Professor Wogan's interpretation of this and subsequent positive signals from the Administration was that the Department should continue to develop those areas he and his faculty had identified as being of central importance. In light of strongly positive statements on the new mission of the Department from the Visiting Committee and Dean Deutch at the Visiting Committee meeting in March of 1985, Professor Wogan decided not to inform the faculty of his department that the Administration had earlier considered closing it down.

John Deutch became Provost in July of 1985, and Professor Gene Brown succeeded him as Dean of Science. During the next two and one-half years, neither Dean Brown nor Provost Deutch informed Professor Wogan of any concerns they may have had about the progress of the Department. On December 18, 1987, the Dean met with the Provost and President to discuss the five-year plan of the School of Science. Dean Brown recommended that the Department be phased out; the President and Provost accepted the recommendation and authorized the Dean to proceed. Dean Brown met with Professor Wogan on December 31, 1987 and informed him of the decision to close the Department. Professor Wogan was instructed to keep the matter in confidence, because the Dean felt that he should personally shoulder the responsibility of informing the faculty, which he did on January 6, 1988. Dean Brown explained to the faculty that their efforts to bridge the intellectual areas of biotechnology and toxicology had not succeeded in the view of the Administration and that the human and

physical resources, released by closing the Department, could be used to strengthen other areas of the Institute.

At the time of the January 6 meeting of the Dean with the Department, no detailed plan had been formulated for implementing the disbanding of ABS or for addressing the numerous issues the announcement would raise with regard to the reputations and future of the members of the Department. However, the Dean gave his views on several practical issues raised by the faculty. He stated that 18 months should be sufficient to phase out most of the activities of the Department, although students would be allowed to continue as necessary to complete their degrees in ABS. Existing contracts of the junior faculty would be honored. When asked about the meaning of tenure, Dean Brown responded that his interpretation was that Policies and Procedures was silent on the issue, and that he would consult with the Provost and President. He offered to speak to individual faculty, tenured and non-tenured, about possible futures at MIT and indicated that he would take responsibility for finding other positions at MIT for faculty of the Department.

The members of Science Council were informed of the closing of ABS shortly after Dean Brown met with the faculty. The Visiting Committee of ABS was informed of the decision by letters from Dean Brown on January 12 and President Gray on January 15.

The Institute community and the granting agencies learned the fate of ABS principally through informal statements reported by the media shortly after the January 6 meeting (see Appendix 2). Some of the reported comments were viewed by the faculty as damaging to their reputations. The grant program officers demanded immediate clarification of the status of faculty. Moreover, they expected a statement of commitment from the Institute that it would continue to provide the resources and environment upon which the intellectual activities of the faculty depend. In order to clarify these issues, the Department faculty urged President Gray and Provost Deutch to release a formal statement, which they did on February 24, 1988 (see Appendix 2). Because the damage to the faculty, students, staff, and research programs was perceived to be severe, and would increase with a protracted state of professional limbo,

the members of ABS and other departments emphasized that the 18-month time-scale for transition was unacceptable and requested that the Administration immediately begin placing departmental faculty into new settings.

It wasn't until mid-January that Dean Brown made it clear that tenure would be honored, but that some tenured faculty would likely need to accept appointments within the School of Science, rather than within departments. There was also a shift in attitude toward the continued service of the junior faculty beyond their existing contracts. Initially, the junior faculty who inquired about staying at MIT beyond their existing contract were informed by the Dean that they should apply for open faculty positions elsewhere within the Institute. If they were hired by another Department, which would be expected to provide salary support and space, they could stay at MIT. Later, the decision was made to keep the four non-tenured faculty on the normal tenure-track in other departments. The appointment of the Department's sole Instructor will be honored for at least one year.

As of the time of this report, appointments in Whitaker College are being arranged for the five toxicologists, and three of these will have joint appointments in the Department of Chemistry. Four biotechnology faculty have accepted appointments in the Department of Biology, two have accepted Chemistry appointments, and two have accepted positions in the Department of Chemical Engineering. One faculty member has accepted an appointment in the School of Science; one has accepted an appointment in the Office of the Provost; and the single remaining faculty member has not yet accepted an offered appointment in the School of Science.

The fate of the graduate academic program in ABS was an early agenda item. In January, Dean Brown formed a committee with the mission of ensuring that ABS students will be able to finish their degree programs in ABS or, subject to negotiation, in the department to which their advisors will move.

The fate of the VII-B undergraduate program in ABS was not considered until two months after the decision to close ABS was announced. VII-B is an option

in the Life Sciences curriculum (Course VII) taught jointly by ABS and Biology faculty; the students in VII-B are solely supervised and advised by ABS. Neither ABS nor Biology dealt with the issue of VII-B until it was brought to their attention by the Undergraduate Academic Support Office, which needed to know whether VII-B should be included as a declarable major for present freshmen. After looking into the matter, Dean Brown instructed the UASO to remove VII-B as an option for freshmen declaring majors this year. The Committee on Curricula, after consulting with the Chair of the Faculty, has asked for a written rationale for discontinuing VII-B. Recently, one faculty member from ABS and one from Biology have taken responsibility for ensuring that undergraduates now enrolled in the program, or who wish to enroll, can finish the degree in as normal a manner as possible. No formal proposal has been put forth to discontinue VII-B.

V. DISCUSSION OF RECOMMENDATIONS

V.1. Recommendations Concerning Shared Governance

Our recommendation concerns both the healthy sequence of events as a proposal for reorganization is developed, and the requirement of a specific check-point in the process. On the first point, we believe there is need to maintain an orderly sequence of decision as an action moves upward within the administration. The dean or other administrative head should consult with knowledgeable people inside and outside the Institute regarding the broad academic issues raised by the anticipated change, and should work with faculty, department heads and other deans in anticipating issues that may arise in its implementation. Once a plan has been developed, he should prepare a proposal to the Provost and ultimately to the President.

Second, in advance of final decision on a proposal that involves a substantial change in Institute structure, the President should appoint a committee to provide advice to his office on the particular issue at hand. The necessity of reporting to such a committee should insure an orderly procedure during the period when a substantial reorganization is being formulated. It also should focus early attention on the many personnel, academic and administrative

details that will have to be dealt with in the process of implementation.

We recommend that the Faculty Policy Committee, in collaboration with other faculty committees and members of the Administration, prepare language to be included in Policies and Procedures requiring the presidential appointment of such a committee in these cases. Three issues will need to be considered by the Faculty Policy Committee in carrying out this task: the scope of this requirement, the committee's mandate, and its composition. On the issue of scope, we have said that the formal procedure would apply only in circumstances involving "substantial" change. We believe considerable latitude should be left to the President to interpret what is substantial. We would add, however, that our sense is that the requirement would have applied to all the examples explored in this report, most assuredly including the ABS case, but that many reorganizations within departments would not be included.

We believe the President also should be given wide latitude in setting the mandate of the committee, taking account of the particular circumstances that cannot be foreseen at this point. For example, it is our view that the charge to the committee need not include a formal recommendation regarding the wisdom of the proposed change. On the other hand, we believe it should involve a review of the procedures followed in bringing the case to Presidential decision, including the level and seriousness of information gathering and consultation and the quality of thought given to personnel issues. We also expect that the President would work closely with the Provost as the chief academic officer and would consult with the Chairman of the Faculty.

In our view the composition of the committee should be at the discretion of the President as well, with the following restriction. The committee should include at least three faculty members who are not at the same time members of the administration.

In summary we recommend that the process used to implement decisions to reorganize or terminate an academic unit should be formalized as follows. A proposal and plan for such reorganization of an academic unit should be submitted to the Provost by the relevant academic officer, in most cases the

Dean of a School. Before a final decision is made, we recommend that the President appoint a committee to provide advice to him on the planned reorganization. The committee need not be asked to make a formal recommendation on the proposed change, but it should review the procedures that have been followed in bringing the case to the President including the level and seriousness of information gathering, consultation, and thought given to the associated personnel issues. We also recommend that language be prepared to be included in Policies and Procedures requiring presidential appointment of such a committee.

V.2. Recommendations Concerning Academic Appointments at MIT

One of the basic weaknesses revealed by the process that lead to the ABS closing was the lack of understanding about the nature of academic appointments at MIT. As a result, the ABS faculty were uncertain about the Institute's obligations and commitments to them.

V.2.1 Tenure

While it is true that Policies and Procedures gives little guidance on the tenure of faculty upon the termination of an academic unit, the senior members of the administration who appeared before the Committee took the position that tenure is held within the Institute. This practice has been followed in the past in those few reorganizations where individual faculty have lost a departmental home.

Tenure is typically granted upon the recommendation of a department and guarantees departmental affiliation only with that department. It does not guarantee research space, nor resources, nor continued development of any field of specialization. Appointment within an academic department provides a collegial environment, participation in the teaching program, an environment in which to carry out research and in most departments to an involvement in graduate education.

In most of the previous reorganization that we have examined, faculty were moved in groups into academic units. The issue raise by the dissolution of

ABS is that while most faculty were relocated in new departments as individuals, the process left several individuals without departmental appointments and they were offered appointments without departmental affiliation.

When as a consequence of departmental reorganization a faculty member loses departmental affiliation by being given a non-departmental appointment he/she is effectively deprived of a number of important faculty perogatives. We feel therefore that such non-departmental appointments should be resorted to only when no other solution can be found. In these cases we urge that special efforts including the offering of various inducements to appropriate departments and inter-disciplinary research programs be made to find collegial homes for such displaced faculty.

We also endorse the role currently played by the Faculty-Administration Committee in making themselves available to individual faculty who are affected by departmental reorganizations.

V.2.2 Junior Faculty: Contracts and Obligations

We believe that our obligations to junior faculty go well beyond our contractual obligations. During the recruitment of a new faculty member there is an implied assurance given that MIT is a good place to build a professional career.

During the present action, a clear statement regarding the Institute's obligations to junior faculty was too long in coming. For non-tenured faculty, MIT policies provide a one year notice of non-renewal of contract. Under this policy, some of the junior faculty in ABS had received oral notice that their contracts, which would formally expire this June, would be renewed, but the paperwork had not been completed. Thus the initial statement that contracts would be honored was ambiguous. Some of them inferred that they had only until June to find new academic positions. Others were told to apply in current searches being carried out by other departments.

If there is current ambiguity in MIT's policy regarding its obligations to junior faculty, we recommend that it be clearly resolved by a statement that the Institute stands behind their contracts. In a departmental reorganization, there should be a clear statement that junior faculty will be relocated in existing academic departments. When they are recruited, some assurances of discretionary resources, research space, access to research personnel etc. are given to junior faculty by their potential department head acting on behalf of the Institute--and the Institute must stand behind these assurances.

For many junior faculty, the termination of their academic unit results in a disruption of their career. In a departmental reorganization the obligations of the Institute become to assist the faculty member to realign their research with the missioof their new department or to prepare effectively to continue their careers outside of MIT. In any relocation to a new academic department, the resources provided by the Institute must follow the junior faculty member.

V.2.3 Other Academic Personnel

MIT has contractual obligations with other academic personnel such as principal and senior research scientists and equivalent. It is implicit in the above discussion that we believe that these contracts are with the Institute and not solely with an academic unit. Thus a clear statement should be made to other academic personnel, who may have less access to departmental information channels, that their contracts are with MIT. This is particularly important when the formal notice of appointment and/or renewal lags behind MIT's stated policy. While not a formal part of our charge, we recognized that the termination of an academic unit is extremely disruptive to the careers of a variety of support personnel. We urge the Institute to maintain its policy of examining and addressing the needs of support and service staff during such a reorganization.

V.2.4 Recommendations Concerning Contracts of Academic Personnel

MIT has become a large and complex place. The common traditions which serve

us so well and in which we take justifiable pride are less accessible to new members of our community. Faculty rely on informal, collegial networks within their department to answer their questions about the reciprocal obligations between the Institute and its faculty. Formal administrative actions, such as letters of renewal, may be late in coming.

However, as evidenced by the current situation, in a crisis both faculty and administrators will turn to Policies and Procedures for a basic statement of these obligations and may interpret that language without regard to our common traditions. This is what happened in the current situation, and it was singularly responsible for most of the turmoil experienced by the individuals involved. Thus while we do not believe that any set of rules without an accompaning shared understanding could ever be drafted to effectively govern the activities of so complex an institution as MIT, we do believe that Policies and Procedures must clearly set out the reciprocal obligations of the Institute and its faculty.

We recommend that the Institute formalize the principle that tenure is held by the faculty in the Institute rather than in a department or other academic unit. This principle should be clearly stated in Policies and Procedures. Likewise, it should be stated that contracts with junior faculty, and senior and principal research scientists or equivalent are guaranteed by the Institute standing behind their academic unit.

We also urge that the Institute pay more attention to insuring that the formal notice of contract renewal for academic personnel does not lag behind our stated policies and that these issues be quickly resolved in any reorganization of an academic unit.

V.3. Recommendations Concerning the Academic Programs of a Terminated Academic Unit

Although it is expected that most departmental reorganizations will not lead to the phasing out of an academic program, a decision to close an academic

department will ultimately lead to terminating its academic program. In any such action the concerns of the students are prominent in the eyes of the administration and the faculty. But the details of implementation have not been well though out, perhaps because this happens so rarely.

The Committees of the Faculty have a well defined role in the creation of new degree programs, although much of this is by custom rather than explicitly spelled out in the Rules of the Faculty. By contrast, the rules are virtually silent on procedures to be followed when an academic unit is terminated. Thus it is important that the relevant Committees of the Faculty develop policies covering such terminations so that the effects of such actions on the academic program can be considered by those who are involved in the decision and implementation plan.

At the graduate level, the GCSP has various written and unwritten procedures to establish degree programs. Moreover, the Institute has responded in an effective ad-hoc manner to the current situation so as to insure that all graduate students currently registered can complete their degrees and can maintain their links with their research advisor.

The situation is somewhat different for undergraduate students. For major changes in the academic program of a department (eg. the potential restrictions put on students who wished to register in EECS) it has beethe custom that students who apply and are admitted to MIT should have the expectation that the academic programs that were described in the catalogue when they applied should be accessible to them. Thus the phasing out of an undergraduate degree program could require some five years.

We recommend that the Faculty Policy Committee review the existing rules and policy documents with respect both the initiation and termination of degree programs. The outcome of such a review should be a single policy document supplemented with changes in the Rules of the Faculty.

APPENDIX 1 REVIEW OF PAST DEPARTMENTAL REORGANIZATIONS AND CLOSINGS

We have examined several of the departmental reorganizations and closings that have taken place since 1976. To find a closing of an academic department, we would have had to go back to 1953 (Construction Engineering). Given time constraints, the doubtful relevance of distant events to the current situation, and the difficulty of obtaining a clear picture of these past events, we have examined only the events since 1976. These include: the splitting of Foreign Literature and Linguistics and the merger of Linguistics and Philosophy; the closing of the Division for Study and Research in Education; the merger of Meteorology and Physical Oceanography with Earth and Planetary Sciences; and the creation of the Department of Brain and Cognitive Sciences and its placement in Whittaker College. Of particular relevance to our charge is the role of the departmental faculty as participants in discussions of the intellectual reasons for the changes, as well as having a voice in the decision itself and input into the details of the organizational changes required to bring the changes about. Also of interest is the issue of how faculty were resettled and how the academic programs were handled.

These previous administrative actions were not without controversy. Some of the individuals involved in these actions saw the decision and consultative processes as flawed in some respects. It is not our purpose to judge the correctness of the decisions in these past actions but rather to present a factual account of what processes did take place, the role of the faculty in these processes, and the results of the processes in terms of academic appointments and academic programs.

IV.1. The Splitting of Foreign Literatures and Linguistics; the Merger of Linguistics and Philosophy

A Department of Modern Languages existed at MIT at the turn of the century; its function was to provide language instruction to students in science and engineering. After the second World War, a number of linguists were hired through the Research Laboratory for Electronics (RLE) with joint appointments as faculty in Modern Languages. As a result of the success of the activities

in linguistics, the head of the Department of Modern Languages proposed that the Department offer a PhD degree in Linguistics, which was approved in 1961. The name of the Department was later changed to Foreign Literatures and Linguistics. The program in Linguistics quickly became the leading PhD program in the country, and its faculty took little part in the undergraduate (language and literature) program of the Department. As a result by 1975 the Department contained two totally unrelated faculty groups. The Linguistics group had a faculty of seven or eight, all tenured, while Foreign Languages had a tenured faculty of five or six in foreign literatures and several non-tenured faculty who were primarily teachers of language.

Originally Philosophy was a section in the Department of Humanities. A PhD program in Philosophy was established in 1964-5 and in 1971 Philosophy was established as a separate Department. A number of the philosophers had a strong interest in linguistics and there was considerable cooperation between the two groups. Graduate students in each department took some of their course work in the other.

In 1975 the MIT Administration expressed its concern that the present Department of Philosophy was too small to be effective in the MIT environment. The Dean of Humanities and Social Science consulted several times with the Head of Philosophy about the possibility of a merger with the faculty in Linguistics. In Dec. 1975, the Dean asked the Philosophy and Linguistics faculties to consider a possible merger. The Linguistics faculty responded in writing that a merger was a very attractive possibility and recommended that it take place subject to certain conditions. The conditions related to the autonomy of faculty within the merged department, and the appointment of a new department head. They also recommended that a special committee elected by the faculties of Linguistics and Philosophy be established to work out the details. The proposal to merge was discussed separately by the Philosophy faculty and although some reservations were voiced, in the end a majority of the faculty were persuaded that the proposal made good sense and the minority acquiesed on the grounds that there were no viable alternatives. Like their colleagues in Linguistics, the Philosophy faculty insisted upon sectional autonomy and upon the current degree programs remaining in place.

The next day, the proposal for the merger was presented to and approved by the Academic Council; the proposal from the Linguistics faculty agreeing with the merger and recommending the establishment of a joint faculty committee from the two Departments to work out the details was attached to the Dean's presentation. The Dean's letter to the two faculties confirmed the merger and authorized the setting up of the recommended faculty committee. Although somewhat surprised at the speed with which the reorganization was implemented, the faculties of the merged department registered no serious objections to the action.

The Dean also presented a plan to the Academic Council regarding the splitting of Foreign Literatures and Linguistics. It recommended that the existing Department of Foreign Literatures and Linguistics be abolished and that the Foreign Languages and Literatures faculty be constituted as a section in the Department of Humanities. He also proposed that consideration be given to the reorganization of the Humanities Department as a Division.

In Feb. of 1976 the Visiting Committee for the Department of Foreign Literatures and Linguistics met jointly with the Visiting Committee of Philosophy and considered the proposed changes. While the merger of Linguistics and Philosophy was accepted, concern was raised about the merger of the Foreign Languages and Literatures group into the Department of Humanities. The Committee received and discussed a statement from the literatures faculty which asked that the autonomy of the section be preserved within their new Department. While basically supportive of the proposed merger, some members of the Philosophy Visiting Committee expressed serious reservations about the advisibility of the merger because of possible effects on the future of Philosophy at MIT.

IV.2. The Closing of the Division for Study and Research in Education

In December of 1971, the Task Force on Education, appointed jointly by the President, Chairman of the Faculty and the Chairman of the Commission on MIT Education, as one of its recommendations, proposed the creation of "an

Education Division" for the "organization, coordination and support...of programs in education research." In June of 1972, as a response to this recommendation, the President appointed the Education Division Steering Committee, which drafted the charge for the new Division and helped to guide it during its initial evolution. The Division of Study and Research in Education (DSRE) was established in July 1973.

Most of the faculty in the Division had joint appointments with other departments or schools. The Director was a previously tenured faculty member. The Division did not offer an undergraduate or a graduate degree although a joint PhD program was administered with other departments. Academic subjects were offered by Division faculty as DSRE subjects; some of these were cross listed with other departments.

In the Fall of 1981, the Provost appointed the DSRE Review Committee. This Committee consisted of MIT faculty exclusive of Division faculty. One member had served on the 1971 Task Force. The Committee was chaired by the Associate Provost to whom the Division reported. The charge to the Committee was "to review DSRE with particular attention to its original goals and expectations, its historical evolution, its success in achieving its stated goals, and its prospects for the future....To assess its internal and external reputation and its perceived impacts on education...To make recommendations concerning the future of DSRE". In Sept 1981, the Committee met jointly with the entire DSRE staff. The Committee also met individually with DSRE faculty and research staff as well as with several MIT (non-DSRE) faculty and outside experts selected from a list suggested by the Director. These interviews occurred during the Fall semester. The final report was late in coming but the Director had inferred the outcome in connection with a promotion case. The written report was dated March 15, 1982 and recommended the terminations of DSRE. The Director expressed concern that the criteria against which the Division was assessed were the goals set out by the 1971 Task Force rather than the latter charge to the Division drafted by the Steering Committee.

DSRE ended its formal existence on Dec. 31 1982. All of its faculty retained their MIT appointments, most in the departments in which they held a joint

appointment. Some have subsequently left MIT. The Director, who was a tenured faculty member when the Division was established, holds his tenured appointment in the Office of the Provost.

IV.3. The Merger of Meteorology and Physical Oceanography with Earth and Planetary Science

In August, 1982 the Dean of Science established a "Merger Advisory Committee" to advise him on "the advisability of merging the Departments of Meteorology and Physical Oceanography with Earth and Planetary Science." Noting that the possibility of such a merger had been raised in the past, both from an intellectual viewpoint as well as from the viewpoint of the best use of Institute resources, the Dean requested advice concerning: the advantages and disadvantages of a merger compared to the present arrangement; specific steps that should be taken if the merger were to take place; a recommendation on the desirability of this course of action and how it will be received by the faculty and students of both Department.

The Committee consisted of three faculty members from the affected Departments; it was chaired by a faculty member with strong intellectual ties to both Departments. The Committee submitted its report in Dec. 1982.

The Committee concluded that "provided certain requirements are met, a merger is ultimately in the best interests of both existing departments and of MIT" a recommended that "the MIT Administration should undertake to effect a merger between EPS and MPO." The requirements included action that would strengthen the smaller unit (MPO) within the framework of the new department including filling an important chair, certain funding agreements, commitments to rebuild meteorology with junior and senior appointments and the creation of a Center of Meteorology and Physical Oceanography within the new department.

The Committee held intensive discussions with faculty of both Departments. During this process, the faculty of MPO responded to the possible merger with a written report outlining their concerns. After considerable negotiations with faculty in both Departments, the two department heads wrote jointly to

the Dean of Science in April, 1983 outlining the proposed structure for the merged departments. This was accepted by the Administration and the merger of EPS and MPO was reported to the faculty meeting by the Provost in May 1983.

IV.4. The Formation of the Department of Brain and Cognitive Sciences within Whitaker College

From its inception in the late 1950's the MIT Psychology Department was composed of three groups: neurosciences, language and cognition, and experimental psychology. The then Department Head provided the connecting links between these quite distinct areas of research. Wh his departure the sections began to move noticeably apart. In particular, the neurosciences drew closer to researchers in the Whitaker College, while those in cognition became more involved with researchers in linguistics and with those in artificial intellegence. This later trend was amplified as a result of the founding of the Center for Cognitive Science and with the establishment in 1982, of a BS degree in Cognitive Sciences to be administered by the Psychology Department.

In 1985, department heads and program directors associated with cognitive science sent a memo to the Administration requesting a review of cognitive science at MIT and recommending the appointment of a committee to consider the issues. In parallel, the Visiting Committee recommended that the Department of Psychology request a change of name to the Department of Cognitive Sciences and vigorously pursue this area in both their research and teaching programs. The Committee also expressed concern about the growing split, both physically and intellectually, between departmental faculty in cognitive science from those in the neurosciences. The Psychology Department had experienced severe space problems, which had been alleviated in part by the physical relocation of the neuroscience faculty into Whitaker College, although they retained their departmental affiliation in Psychology. At that time the Provost initiated discussions about the possibility of splitting the Psychology Department with Neuroscience moving to Whitaker while cognitive science would move to Linguistics and Philosophy. In our meeting with the then Provost, he indicated that the major reason for not proceeding with such a reorganization

was that there was no appropriate home for the third section of the Department as well a significant lack of enthusiasm for the plan on the part of the psychologists and in the Department of Linguistics and Philosophy.

The discussions as to the future of the Psychology Department continued. Subsequently the move of the Department from the School of Humanities and Social Science into Whitaker College was proposed as a way to enlarge and strengthen the Department and to improve the interaction with the faculty in the neurosciences. After extensive discussions--formal as well as informal--the department faculty agreed to the move to Whitaker College, although not all faculty members were equally enthusiastic about the outcome.

The Department of Brain and Cognitive Sciences was formally established in July 1986 and located in Whitaker College. The new Department incorporates intact the old Department of Psychology including all of its faculty and degree programs. It is at present the only departmental unit within Whitaker and thus the only unit within Whitaker that offers an undergraduate degree program. Exclusive of Psychology, the other graduate programs in Whitaker save one are joint with departments.

APPENDIX 2

ARCHIVE COPY

Gray, Deutch statement on ABS

The President and the Provost have released the following statement on the decision to close the Department of Applied Biological Sciences:

The faculty and students in the Department of Applied Biological Sciences are engaged in work that is important to MIT and to the larger society, particularly in such fields as biotechnology and toxicology, which have been identified by the department as holding particular promise for the future.

The decision to close the department as such was made late in December, when Dean Brown discussed his five-year plan for the School of Science with us. The principal reason for this decision is the fact that this department's programs do not rest on one or two basic scientific disciplines, but rather are built on applications from several disciplines—some of which are represented in significant strength in other academic departments at MIT. As a result, the department has had continuing difficulty in achieving a coherent sense of mission and intellectual focus.

It is our judgment that the individual programs in the department can be pursued effectively, in many cases more effectively, within other academic units having similar research and educational interests. Accordingly, the decision to phase out the department as an administrative entity was based on intellectual judgments concerning the most appropriate organizational settings for the wide range of activities it currently contains.

This move should be seen as one of reconfiguration, as we work to locate academic homes for current tenured and nontenured faculty that will permit individual faculty groups and programs to pursue their research, and teaching more effectively. We are confident that suitable arrangements will be reached for all faculty in the near future and that all graduate students will be able to continue their studies in an orderly manner, and we have asked the Dean of Science to make sure that these arrangements are completed as quickly as possible.

Tech Talk, February 24, 1988

Chemical & Engineering News

will be a full-scale revolt in the physics community against the SSC."

"The project is expensive," Herrington says. "And we're going to seek international financing to the maximum extent possible. There is outstanding interest from foreign governments. France, Italy, Japan, Canada, and others have shown a tremendous amount of interest and I expect a substantial percentage of the cost from them." Herrington expects that this will alleviate the funding crunch in high energy physics at DOE.

Wil Lepkowski, Washington

MIT to close applied biology department

Massachusetts Institute of Technology has decided to phase out its department of applied biological sciences over the next year and a half. The move is being met with shock and outrage from the department's faculty, graduate students, alumni, and supporters.

John M. Deutch, MIT provost and professor of chemistry, says that the department's future has been under discussion for some time. Its name was changed from the department of nutrition and food science four years ago and at that time it was given a new charter to try to weave together toxicology, biotechnology, and nutrition, according to Deutch.

"The programs didn't coalesce in a way that meets MIT standards and that would justify a separate department," Deutch says. The administration asserts that the department's strongest components—toxicology and biotechnology—can fit better in other departments such as chemical engineering or biochemistry. "This is not an action taken on the basis of dollars, but is based on intellectual reasons," says Deutch.

Some observers, however, think that the decision was a long-term cost-reduction measure made hastily and without sufficient thought as to the effect the closure would have on both the university as a whole and the department's faculty and students. Even those who agree with the university's reasoning think the closing was handled badly. The faculty was taken completely by surprise when the decision was announced.

"It's devastating to people's careers and the integrity of certain programs," says Anthony J. Sinskey, a full professor in the department who specializes in applied microbiology. "There is merit in the decision, but the faculty was not involved in any discussion. It's unfortunate that the administration doesn't recognize the role of applied biology as an interface between biology and engineering or biology and chemistry. There has been a tremendous amount of cross-fertilization, a mixture of students with backgrounds in engineering and basic sciences."

Alumni note that the department has had a significant impact on the biotechnology industry. "It's been a leader in applied aspects of biotechnology in industry," says Robert J. Linhardt, associate professor of pharmaceutical and medicinal chemistry at the University of Iowa's college of pharmacy in Iowa City. Linhardt did postdoctoral work at the doomed MIT department. "I could name 25 people in responsible positions at biotechnology firms who went through the department," he says.

Tenured faculty members are being asked to find positions at other departments within the university, although Deutch says "it's not clear whether all the faculty will be retained." Some of the assistant professors have already been told to "pack up their bags and go," as one department member put it. Graduate students will be allowed to complete their research projects, according to Deutch.

Pamela S. Zurer, Washington

Nuclear test ban forum: chemists take lead role

A strong call for a comprehensive treaty that would ban all nuclear weapons tests was made by prominent chemists from the U.S. and the Soviet Union at a symposium in Las Vegas last week. Testing currently is limited to underground explosions of up to 150 kilotons.

Nobel Laureate Glenn T. Seaborg, who has spoken out against continued testing on previous occasions, told a gathering of about 350 test ban advocates that a total ban would forestall the "dangerously destabilizing development" of so-called third-generation nuclear weapons for use in exotic systems such as the Strategic Defense Initiative.

Seaborg—who from 1961 to 1971 headed the Atomic Energy Commission, the agency then responsible for developing and producing U.S. nuclear weapons—questioned the Administration's claim that confidence in current nuclear systems can be maintained only by testing weapons taken from the stockpile. He also expressed doubts over the Administration's charge that a ban on underground tests could not be monitored.

Vitaly I. Goldansky, a member of the Soviet Academy of Sciences' Institute of Chemical Physics, agreed with Seaborg that only third-generation weapons need testing. He stated that the Soviet Union would agree to a bilateral moratorium on all testing "tomorrow." The Soviets maintained a unilateral moratorium between August 1985 and February 1987. The U.S. did not reciprocate, and conducted 26 tests during that period.

The symposium, which was sponsored by the Natural Resources Defense Council, Union of Concerned Scientists, Physicians for Social Responsibility, and others, came at a time of rising interest in the test ban issue. For the first time, the Reagan Administration is talking formally with the Soviets about testing. Plans are afoot for joint verification experiments during which scientists from each side will be on hand to monitor explosions at the other's major test site.

The Administration's policy is that a comprehensive test ban remains a long-term goal of the U.S. But it says that such a ban can come about only in connection with major progress in reducing nuclear arsenals and that testing will be necessary as long as national security is based on nuclear deterrence.

Michael Heylin, Washington

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CAMBRIDGE

MIT plans to abolish bioscience section

Some faculty angered over area's phaseout

By Alison Bass
Globe Staff

In a move that has stunned and angered some faculty and students, the Massachusetts Institute of Technology has announced plans to abolish the 43-year-old department of applied biological sciences.

MIT officials say they plan to phase out the department over the next 18 months because it is not meeting the intellectual standards expected of a department at MIT. Gene Brown, dean of the school of science and one of the chief architects of the move, said most of the research could be easily transferred to other departments.

However, some faculty said yesterday the department has an "international and national reputation" and closing it could deprive MIT of valuable research in areas such as nutrition, toxicology (the effect of poisons in the environment) and biotechnology. The department brings in $13 million a year in research grants, compared to $16 million each for the biology, chemistry and electrical engineering departments.

"This department has a strong international and national record, and I think a lot of people are concerned that this kind of research may not be continued at MIT – at least under a single administrative unit," said Louis Menand 3d, political science professor.

Faculty members said the department has had a significant impact on the biotechnology industry, spawning many spinoff companies over the years. One alumnus said he could name at least 25 people in responsible positions at biotechnology companies who ~~either taught or graduated~~ from the department.

Other faculty members also expressed anger and disappointment at the sudden move.

"I'm disappointed that MIT saw fit to minimize the significant contribution our program in nutrition and metabolism has made," said Vernon Young, a professor of nutrition in the now-defunct department. "As a formal teaching program, there will not be any further program in nutrition at MIT."

While no jobs will be immediately lost, MIT officials said some tenured and nontenured faculty may end up leaving the institute. They said "every effort" would be made to place tenured faculty in other departments, but no job guarantees have been extended to faculty, or to secretaries and other support staff. Four nontenured assistant professors may lose their jobs when their current contracts expire. Graduate students in the department will be allowed to finish their degrees.

Some professors yesterday criticized the way the decision was carried out. No senior faculty were informed in advance, and when the decision was announced last month, it came as a "shock" to many.

"I think it's disgraceful that they did what they did . . .," said a tenured professor in the department who asked that he not be named. "The amount of consideration they gave to faculty members was close to zero."

One assistant professor said he had started his job only two days before the decision was announced. "I was invited here for a tenure-track position and I moved my family here from Wisconsin," said Kim Lewis, who had received offers from other universities last fall but chose MIT. "Now all my plans are messed up."

John M. Deutch, MIT's provost, acknowledged that the "specific timing of the announcement came abruptly." But he said it had been known for several years that the administration was questioning the value of the department.

A shrinking department

The department has shrunk over the years, losing some prominent faculty to other departments: it now lists about 24 faculty, compared to 31 in chemistry and 51 in biology.

"Any strong academic community should consider from time to time whether all of the departments are as strong as they should be," Deutch said. "This was an action taken to strengthen academic performance."